

A Periodic Table Logic Problem

Procedure:

- Enter the letters from the clues in the corresponding elements place on the periodic table.
- Every letter below goes in one of the boxes below. Only use one letter once and the letter will not be the same as the element symbol.
- Some clues may seem like more than one answer. You may have to skip and answer the ones you are sure about.

1A	2A	3A	4A	5A	6A	7A	8A

Clues:

- A** This element has been placed inside public drinking water to help fight tooth decay
- B** Has one electron in a $3p$ orbital
- C** Has five electrons in the second energy level (second row)
- D** Its most abundant isotope has a mass of 9
- E** Is in the 7A (or 17th) column shown above
- F** Electronic configuration is $1s^2 2s^2 2p^6 3s^2 3p^3$
- G** This element makes up approximately 21% of the Earth's atmosphere when in a molecule
- H** This neutral element has 20 electrons
- I** Is in the Alkali Metal family (look on your chart)
- J** This element has all its electrons paired up in its orbital (boxes)
- K** This nonmetal is in the 5A (or 15th) column shown above
- L** This metal in the 1A (or 1st) column has the greatest atomic mass
- M** This element has 22 neutron on its most abundant isotope
- N** Has the smallest atomic mass in its column or family
- O** The first element with an electron in the second energy level (second row)
- P** The only element without a need for a neutron
- Q** Has eight fewer protons than clue #H
- R** What makes Superman cry
- S** This element has 31 protons
- T** This element was founded in Germany
- U** Has 16 electrons on this neutral atom
- V** Atomic number is 34
- W** This element is exactly like English class (it just so _____) – hint: this is a pun.
- X** This element has an average atomic mass of 79.904
- Y** Has 4 valence electrons
- Z** What gas do you fill balloons with?